

In the Claims:

Please amend claim 1 so that the claims read as follows:

1. (Currently Amended) A method comprising:
providing a substrate having a metal seed layer;
applying an agitated rinse to the metal seed layer,
wherein applying an agitated rinse includes applying sonic
energy to a rinse liquid applied to the metal seed layer; and
depositing a metal fill layer on the rinsed metal seed
layer by electrochemical deposition.

2. (Original) The method of claim 1, wherein the
metal seed layer comprises a copper seed layer.

3. (Original) The method of claim 1, wherein
providing a substrate having a metal seed layer comprises
depositing the metal seed layer on the substrate by physical
vapor deposition.

4. (Original) The method of claim 1, wherein both the
applying step and the depositing step are performed in the same
chamber.

5. (Withdrawn) A method comprising:
providing a substrate having a metal seed layer;
exposing the metal seed layer to a liquid that
includes a surfactant; and
depositing a metal fill layer on the metal seed layer
by electrochemical deposition.

6. (Withdrawn) The method of claim 5, wherein the metal seed layer comprises a copper seed layer.

7. (Withdrawn) The method of claim 5, wherein providing a substrate having a metal seed layer comprises depositing the metal seed layer by physical vapor deposition.

8. (Withdrawn) The method of claim 5, wherein both the exposing step and the depositing step are performed in the same chamber.

9. (Withdrawn) The method of claim 5, further comprising:
rinsing the metal seed layer after the exposing step.

10. (Withdrawn) A method comprising:
providing a substrate having a metal seed layer;
exposing the metal seed layer to an organic solvent;
and
depositing a metal fill layer on the metal seed layer by electrochemical deposition.

11. (Withdrawn) The method of claim 10, wherein the metal seed layer comprises a copper seed layer.

12. (Withdrawn) The method of claim 10, wherein providing a substrate having a metal seed layer comprises depositing the metal seed layer by physical vapor deposition.

13. (Withdrawn) The method of claim 10, wherein both the exposing step and the depositing step are performed in the same chamber.

14. (Withdrawn) The method of claim 10, further comprising:

 rinsing the metal seed layer after the exposing step.

15. (Withdrawn) A method comprising:

 providing a substrate having a metal seed layer;

 exposing the metal seed layer to activated hydrogen at a pressure of at least 0.1 atmosphere; and

 depositing a metal fill layer on the metal seed layer by electrochemical deposition.

16. (Withdrawn) The method of claim 15, wherein

the exposing step is performed at substantially atmospheric pressure.

17. (Withdrawn) The method of claim 15, wherein

the exposing step includes exposing the metal seed layer to a plasma that includes hydrogen.

18. (Withdrawn) The method of claim 15, wherein

the metal seed layer comprises a copper seed layer.

19. (Withdrawn) The method of claim 15, wherein

providing a substrate having a metal seed layer comprises depositing the metal seed layer on the substrate by physical vapor deposition.

20. (Withdrawn) The method of claim 15, further

including exposing the metal seed layer to activated oxygen.

21. (Withdrawn) A method comprising:

providing a substrate having a metal seed layer;
exposing the metal seed layer to an oxidant solution
so as to form an oxidized surface layer on the metal seed layer;
and
depositing a metal fill layer on the metal seed layer
by electrochemical deposition.

22. (Withdrawn) The method of claim 21, wherein the
oxidant solution comprises hydrogen peroxide.

23. (Withdrawn) The method of claim 22, wherein the
oxidant solution comprises a concentration of hydrogen peroxide
of between about .1 percent and 6 percent.

24. (Withdrawn) The method of claim 21, wherein the
metal seed layer is exposed to the oxidant solution for about
one minute or less.

25. (Withdrawn) The method of claim 21, wherein the
oxidized surface layer has a thickness of about 100 angstroms or
less.

26. (Withdrawn) The method of claim 21, wherein the
oxidized surface layer is adapted to reduce an occurrence of gas
bubbles forming on the metal seed layer upon immersion of the
metal seed layer in an electrolyte solution of an
electrochemical deposition bath.

27. (Withdrawn) The method of claim 21, wherein the oxidized
surface layer is adapted to increase wettability of the metal
seed layer.